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EOSINOPHILIA IN DISEASES
OF THE SKIN.

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EOSINOPHILIA IN DISEASES
OF THE SKIN.

The following report embodies an investigation into the eosinophil content of the blood in a series of 105 cases of cutaneous disease.

In making the differential counts the leucocytes were divided into the following five main groups:-

Polymorphonuclear Leucocyte,
Small Lymphocyte,
Large Lymphocyte,
Eosinophil Leucocyte,
Transitional Leucocyte.

All cells intermediate between small and large lymphocytes were relegated to the former group.

According to Gulland and Goodall¹ the proportions of the different varieties of leucocytes found in the blood of apparently healthy individuals are as follows:-

Polymorphonuclear Leucocytes.	60 to 70%
Small Lymphocytes.	15 to 30%
Large Lymphocytes.	
(Transitional Leucocytes &c).	3 to 10%

Eosinophil Leucocytes. .5 to 4%

Five per cent of eosinophils is, however, generally regarded as the maximum physiological limit, any increase on this number constituting an eosinophilia.

Besides certain diseases of the skin, the conditions under which a relative increase of eosinophil leucocytes occurs include:-

- I. Certain cases of asthma during the paroxysms.
- II. Infection by various animal parasites, e.g., Bilharzia &c.
- III. Some infectious diseases, e.g., certain stages of scarlet fever and pneumonia.
- IV. Myelocythaemia &c.

In making this investigation the possibility of any of the aforementioned complicating causes of eosinophilia has been borne in mind and definite conclusions drawn only in those skin diseases, which were found repeatedly to be accompanied by this blood change.

In many of the cases differential counts were carried out at various stages of the diseases, with a view to determining whether improvement or the

reverse in the skin condition was accompanied by any changes in the blood.

Of the various methods of fixing and staining the films which were tried, the following one was found to be most satisfactory:-

A drop of blood was received on the edge of a square coverslip from the lobe of the ear and smeared evenly over by means of a piece of cigarette paper. This was allowed to dry: fixed for five minutes in formol-alcohol, and then stained with eosin and methylene blue.

By this method the nuclei of the polymorphs were stained a deep blue and the protoplasm had a finely granular appearance.

The eosinophils, on the other hand, presented a pale blue nucleus surrounded by protoplasm packed with large rounded red granules. Numerous burst eosinophils were found in many of the films but no individual case exhibited a marked increase in this form of cell.

Some authorities find fault with the cigarette-paper method of making blood films on the ground that the larger cells tend to be drawn to one side of the film. To obviate this source of error the counts were made across the thick and thin portions

of the films in the direction in which the cigarette paper was drawn. Successive leucocytes were counted in this way until five hundred or more were enumerated in each case. To get a reliable result it was found to be essential to count this large number of cells owing to the unequal way in which the eosinophils were distributed throughout the films, e.g., in one film the first hundred leucocytes enumerated contained only four per cent of eosinophils whereas the second hundred contained sixteen per cent.

The cases were chosen both from the wards and the outpatient department.

The diagnosis in every case was made by Dr. Norman Walker, only typical cases in which the diagnosis was beyond doubt being included in the series.

No eosinophilia was found in any patient suffering from:-

Acanthosis Nigricans.

Acne Vulgaris.

Actinomycosis.

Darier's Disease.

Dermatitis Solare.

Erythema Iris.

Erythema Multiforme.

Hydroa Vacciniforme.

Lupus Erythematosus.

Lupus Vulgaris.

Lichen Atrophica.

Lichen Planus.

Lichen Verrucosus.

Paraffin Dermatitis.

Pediculosis Corporis.

Pemphigus, Butcher's.

Pemphigus Foliaceus.

Pityriasis Rosea.

Pityriasis Rubra Pilaris.

Psoriasis Vulgaris.

Rosacea.

Seborrhea.

Sycosis.

Tinea Barbae.

Tuberculosis Cutis.

Urticaria.

It has been stated by Canon that the eosinophils are affected not so much by special forms of skin disease as by the extent and duration or lack of

healing tendency of the lesions. No evidence whatsoever was found in favour of this observation. For example in the psoriasis group there was not a single case which presented an eosinophilia. This group included all grades of the disease from wide spread to the most scant eruptions, and the duration of the cutaneous disturbance varied from three weeks to sixteen years. Nor, speaking of skin eruptions in general, does the eosinophil count seem to bear any relationship to the intensity of the disease process. In such diseases as pityriasis rubra and prurigo, however, in which an eosinophilia was found to be the rule, the amount of that eosinophilia bore a constant relationship to the extent and severity of the eruption. When repeated blood counts were performed in cases of these diseases it was found that the per centage of eosinophils gradually diminished as the skin condition improved.

Before giving the tabulated details of the blood counts a few observations may be made on the haematological findings in those diseases which presented an eosinophilia.

I. PRURIGO.

An excess of eosinophil leucocytes was found in all the five cases in which the blood was

examined. In three of these cases the examination was carried out before treatment had been instituted, and in each of these cases an eosinophilia of over 11 per cent was found. In two of these cases a series of counts was made during the course of treatment and it was found that the per centage of eosinophils gradually fell as improvement took place, the fall being in proportion to the amount of improvement which had taken place.

It is interesting to note that in three of the prurigo cases the patients were subject to asthma and in one, at least, the skin condition improved during the asthmatic attacks. All the counts were made between the asthma attacks so as not to have the eosinophilia which frequently accompanies these attacks complicating the blood counts.

Canon reports one case of prurigo with an eosinophilia of 10.3 per cent.

II. SYPHILIS.

Of the eight cases examined only one, a secondary psoriasiform syphilide, showed an eosinophilia. Two of the cases presented an increased per centage of large lymphocytes. In the 15 cases found reported in the literature the average eosinophil count was 2.99 per cent, the highest being 10 per cent in

a tertiary case reported by French.^{II} Cabot^{III} states that in cases of doubtful syphilis eosinophilia combined with lymphocytosis speaks in favour of syphilis.

III. DERMATITIS HERPETIFORMIS.

In each of the three cases examined the blood showed an eosinophilia. Only one case was uncomplicated and in it, as in the cases of prurigo, there was a gradual fall of eosinophils as the disease improved under treatment, showing that the number of eosinophils was dependent on the skin disease or the pathological processes underlying it. The fluid in the vesicles also contained an excess of eosinophil cells mostly degenerated.

In case No.22 the low per centage of eosinophils and the high per centage of polymorphonuclear leucocytes was probably due to the septic condition of the lesions. As this disappeared under antiseptic pastes the polymorph count fell and the eosinophil count rose.

For diagnostic purposes it is essential to perform a series of leucocyte counts in Duhring's disease as the per centage of eosinophils varies greatly during the course of individual cases.

A single negative count is therefore, of no

importance, but if such negative counts are repeatedly found at different stages of the disease it is strong evidence against the diagnosis being correct. On the other hand, the presence of an eosinophilia is of distinct diagnostic value even if it occur only occasionally.

Of the 24 cases reported in the literature the average number of eosinophils was 16.18 per cent.

IV. SCABIES.

Three out of the four cases examined gave an eosinophil count of more than 4 per cent, in one the per centage was 8. Schramberg and Strickler^{IV} report a series of 47 cases of this disease in which 80 per cent showed an eosinophilia.

V. HERPES ZOSTER.

One of the two cases examined presented an eosinophilia of 6.6 per cent. This fell to 2 per cent as the lesions dried up.

Of the six cases reported in the literature the highest eosinophil count was 2.7 per cent.

VI. PITYRIASIS RUBRA AND INFLAMED SEBORRHOEA.

This group includes cases of seborrhoea of the acute inflamed type, the inflammation being due either to the severity of the seborrhoeic infection or induced by the use of too powerful remedies,

such as the official sulphur ointment, in the treatment of subacute or chronic forms of this disease. Included also are two cases of generalised exfoliative dermatitis (pityriasis rubra). An eosinophilia was found in every one of the six cases examined, the per centage corresponding fairly closely to the extent and severity of the disease process. The eosinophil count fell in every case except one, as improvement set in.

The differential leucocyte count in seborrhoeic cases gives valuable assistance regarding the strength of application to use. In cases in which the per centage of eosinophil cells is high only mild application should be used such as lanoline, vaselin, and olive oil. As the per centage of these cells falls, however, and also in cases where they are primarily few in number stronger medicaments such as acid salicylic and sulphur may be combined with the grease in strengths bearing an inverse ratio to the per centage of eosinophils present. No reference to the occurrence of eosinophilia in these diseases could be found in the literature.

VII. DERMATITIS.

This group includes cases of, so called,

Eczema, a term which has been almost entirely given up in the Edinburgh School owing to its lack of distinctive meaning.

Out of the seven cases examined two showed an eosinophilia. One of these patients had suffered from an extensive papulo-vesicular dermatitis for $3\frac{1}{2}$ years. She was also subject to asthma. After a stay of three weeks in hospital, she took a severe attack of asthma which lasted three days. During and after this attack the skin disease which had been most intractable to treatment, improved very rapidly, the patient being discharged completely cured a fortnight later.

The possibility of an eosinophilia induced by the asthmatic attack being the causal factor of the rapid improvement is put out of court by the fact that these cells fell .6 per cent during the attack in this case and rose 1 per cent after the attack. The most rapid improvement took place during the attack.

VIII. DERMATITIS VENENATA.

Out of the two cases examined one which was due to the application of eucalyptus ointment, showed an eosinophilia of 7.2 per cent. French^V reports one case of application dermatitis which resulted from

the use of oxalic acid, showing an eosinophilia of 5.8 per cent.

IX. LICHEN SPINULOSIS.

An eosinophilia was present to the extent of 9.2 per cent in the only case that came under observation.

X. PEMPHIGUS FOLIACEUS.

Only one case came under notice and presented an eosinophil count of 4 per cent. Seven of the eleven cases found reported manifested an eosinophilia.

XI. LUPUS VULGARIS.

In one case an eosinophilia of 7.2 per cent was found two days after an injection of .001 c.c. of old tuberculin which had induced a well marked local and general reaction.

Rille^{VI} states that he also found no increase of eosinophils in lupus vulgaris, except after the injection of tuberculin when there was a great increase.

CONCLUSIONS.

I. In the majority of skin diseases including psoriasis, no cases presenting an eosinophilia were found.

II. An eosinophilia was present in every case of prurigo, acute seborrhoea, pityriasis rubra and dermatitis herpetiformis that came under observation, and also in the only case of lichen spinulosus in which the blood was examined.

III. The occasional occurrence of eosinophilia was noted in syphilis, scabies, herpes zoster, dermatitis and dermatitis venenata.

IV. In prurigo, acute seborrhoea and pityriasis rubra the amount of the eosinophilia bore a constant relationship to the extent and severity of the eruption.

V. No evidence was found in favour of Canon's law.

VI. To be of real diagnostic value it was found to be essential to perform a series of differential leucocyte counts in suspected cases of dermatitis herpetiformis as the per centage of eosinophils varied greatly during the course of this disease.

VII. In suspected cases of dermatitis herpetiformis even the occasional occurrence of an eosinophilia was found to be in favour of this diagnosis being established, whereas its persistent absence was found to have the reverse significance.

VIII. In cases of pityriasis rubra and extensive

acute seborrhoea while the per centage of eosinophils was high only the mildest external remedies could be employed. As the per centage fell stronger application could be used.

IX. Any improvement which may be produced on dermatitis by an attack of asthma is not due to the eosinophilia which that attack may evoke.

X. No increase of eosinophils was found in lupus vulgaris except after an injection of old tuberculin which produced a marked local and general reaction.

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TABULATED CASES.

Case no.	Age	Notes on Skin Condition
		<u>ACANTHOSIS NIGRICANS.</u>
1	21	Distribution:- Flexures. Axillary borders. Palms & Soles. <u>Duration</u> 20½ yrs.
		<u>ACNE VULGARIS.</u>
2	32	Face. Comedones and nodular lesions. <u>Duration</u> 5 years.
3	25	Severe on face, back and chest. <u>Duration</u> 7 years.
4	26	Face. Numerous comedones and lumpy lesions. <u>Duration</u> 5 years.
		<u>ACTINOMYCOSIS.</u>
5	19	Large rounded patch 4" by 4" on right cheek. <u>Duration</u> 5 months. Leucocyte count 10,400.
		<u>DARIER'S DISEASE.</u>
6	30	Extensive on trunk and limbs. Absent on hands, face and scalp.
		<u>DERMATITIS.</u>
7	55	<u>June 3rd. 1912.</u> Papulo-vesicular type.

Percentage of Leucocytes.

Other diseases	Small lymphocytes.	Large lymphocytes.	Poly-morpho-nu-clears.	Eosinophils.	Transi-tionals.
none	47.2	3.8	47.2	1	.8
none	31.2	3	64.2	1.6	0
none	33	.8	64.2	1.8	.2
none	22.4	2.8	73.8	.8	.2
none	30	1.6	65.2	2.6	.6
none	22.8	2.2	73.2	1.8	0
Chronic Bron-	32	5.6	55.4	7	

Case no.	Age	Notes on Skin Condition
		<u>DERMATITIS, (contd.)</u>
		Extensive on trunk and limbs, crusted lesions on arms and thighs. <u>Duration</u> $3\frac{1}{2}$ years.
		<u>June 23rd. 1912.</u> Skin lesions improved greatly since onset of asthmatic attack.
		<u>June 28th. 1912.</u> Papulo-vesicular lesions all disappeared.
8	62	Papulo-vesicular patches on arms, hands, knees, thighs and face. <u>Duration</u> $1\frac{1}{2}$ years.
9	54	Papulo-vesicular patches on arms, legs and scrotum. <u>Duration</u> 16 years.
10	$2\frac{1}{2}$	Vesicular and crusted lesions on scalp, face, trunk and limbs. <u>Duration</u> 20 months.
11	6	Extensive cracked and crusted lesions on face, arms, and legs. <u>Duration</u> $5\frac{1}{2}$ years.
12	31	Washerwoman's dermatitis, of arms. <u>Duration</u> 4 weeks.
13	20	Extensive on limbs and slight on trunk. <u>Duration</u> 4 years.
		<u>DERMATITIS, PARAFFIN.</u>
14	57	Extensive on arms, slight on feet, left

Other diseases	Small lymphocytes.	Large lymphocytes.	Poly-morpho-nu-clears.	Eosino-phils.	Transi-tionals.
chitis & asthma for many years.	32	5.6	55.4	7	
On second day of asthmatic attack.	34.4	3	56	6.4	.2
Asthma attack passed off 2 days ago. none	33 43.8	.8 1.8	58 51.4	8 3	.2
none	34.4	1.6	61.4	2.6	
Rickets.	82.2	.2	15	2.6	
none	32.4	.8	45.6	21.2	
none	27.2	2	69.4	1.4	
none	17.6	1.2	76.2	4.8	.2
none	24.6	5	68.8	1.6	

Case no.	Age	Notes on Skin Condition
		<u>DERMATITIS, PARAFFIN, (contd.)</u>
		temple, ears and neck. <u>Duration</u> 2 years.
		<u>DERMATITIS SOLARE (Summer Prurigo.)</u>
15	26	Papular eruption on face, neck and hands. Very itchy. <u>Duration</u> 3 weeks. Similar attacks in summer for last four years. Also Seborrhoea Capitis.
16	40	Papular eruption on face, hands and fore-arms. Has occurred from February to October for the last 20 years.
17	9	Face, forehead and hands. Papular. <u>Duration</u> 2 months. Similar eruption last summer.
18	13	Face, arms up to elbows. Papular. <u>Duration</u> 3 summers. Well in winter.
		<u>DERMATITIS VENENATA.</u>
19	17	Skin on face and hands red and oedematous. Due to applying a too strong ointment to "spot" on face. <u>Duration</u> 7 days.
20	8	Right arm and shoulder oedematous, papular and pustular. Due to applying ointment

Other diseases	Small lymphocytes.	Large lymphocytes.	Poly-morpho-nu-clears.	Eosino-phils.	Transi-tionals.
none	57	1.4	40	1	.6
none	25.2	1.2	72.2	1.4	0
none	28.6	4.6	63.2	3.6	0
none	30.4	2.8	64.2	2.6	0
none	16.6	3	77	3.4	0
none	38.4	2.6	51.8	7.2	0

Case no.	Age	Notes on Skin Condition
		<p><u>DERMATITIS VENENATA, (contd.)</u></p> <p>containing oil-of-eucalyptus.</p> <p><u>DERMATITIS HERPETIFORMIS.</u></p>
21	36	<p>Typical vesicular lesions all over body except hands and soles of feet.</p> <p>Pigmentation and scarring. Very itchy.</p> <p><u>Duration</u> 1 year. Gradually getting worse despite treatment. A fresh eruption came out one week ago and a few fresh vesicles have appeared daily since.</p> <p><u>April 10th. 1912.</u> Starvation begun. Only allowed water "<u>ad libitum</u>". Eosinophilia in fluid of vesicles.</p> <p><u>April 19th.</u> Rash <u>in statu quo</u>.</p> <p><u>April 26th.</u> Lactic milk started on 23rd. Rash distinctly improved. Itching less</p> <p><u>May 24th.</u> Lactic milk 5 pints daily. Rash nearly disappeared.</p> <p><u>June 24th.</u> Allowed rice, lactic milk and water "<u>ad libitum</u>". Few vesicles still on scalp.</p>
22	12	<p><u>June 6th. 1912.</u> Distribution, legs, arms</p>

Other diseases	Small lymphocytes.	Large lymphocytes.	Poly-morpho-nu-clears.	Eosino-phils.	Transi-tionals.
Extremely de-pressed. Sleep-less.	28	3.6	61.4	6.6	.4
Sleeping better	25.6	5.4	61	7.4	.6
	29.6	.8	64.8	4.8	
Sleeping well.	35.4	2	59	3	.6
Depression gone.	40.8	4	51.8	3.4	

Case no.	Age	Notes on Skin Condition
		<p><u>DERMATITIS HERPETIFORMIS, (contd.)</u></p> <p>face, head and shoulders. Very few typical vesicles. Lesions mostly secondarily infected and consist of crusted and open sores.</p> <p><u>Duration</u> 11 years.</p> <p><u>Treatment</u>, Lactic Milk.</p> <p><u>June 25th.</u> No crusting. Open sores nearly all healed. Few typical vesicles appeared on feet two days ago.</p> <p><u>July 9th.</u> Few fresh vesicles on feet.</p> <p>Rest of body free from disease.</p>
23	48	<p>Dermatitis, pigmentation and scarring on upper arms, back of left shoulder, thighs and buttocks. Very few vesicles.</p> <p><u>Duration</u> 8 years.</p> <p><u>September 2nd. 1912.</u> Starvation started.</p> <p>Water "<u>ad libitum</u>". Salol gr. X t.i. d.</p> <p><u>September 12th.</u> In statu quo. Patient left Hospital on September 13th.</p>
		<p><u>ERYTHEMA IRIS.</u></p>
24	17	<p>Numerous lesions on hands, wrists, fore-arms and tongue. <u>Duration</u> 4 days.</p>

Other diseases	Small lymphocytes.	Large lymphocytes.	Poly-morpho-nu-clears.	Eosino-phils.	Transi-tionals.
Child indispos- ed from absorp- tion from skin lesions. Temp. 100. Pulse 120.	16.5	4.6	75.8	3.1	
Looking better. Temp. 98. Pulse 80.	31.8	4	56.4	7.6	.2
	37.6	3.2	47.4	10.8	1
none					
	31	6.2	58	3.8	1
	29	3.8	61.2	5.2	.8
none	32.2	3.8	61	3	0

Case no.	Age	Notes on Skin Condition
		<u>ERYTHEMA IRIS, (contd.)</u>
		Third attack in one year.
25	10	Extensive on face, hands and feet, <u>May 15th. 1912.</u> <u>May 27th. 1912.</u> Completely cured.
26	7	Target lesions on legs and arms. Few on lips and tongue. <u>Duration</u> 1 week. Third attack within six months.
		<u>ERYTHEMA MULTIFORME.</u>
27	68	Numerous large red raised lesions on forearms, chest, head and neck. <u>Duration</u> 5 days.
28	34	Mixed bullons and iris type on neck, arms and legs. <u>Duration</u> 5 days. Had annual attack for 5 years.
29	39	Arms, trunk and legs affected. <u>Duration</u> 8 months with varying severity.
		<u>HERPES ZOSTER.</u>
30	20	Third dorsal area: left, June 13th. 1912. Vesicles contain clear fluid. <u>Duration</u> 5 days. Pain severe.

Other diseases	Small lymphocytes.	Large lymphocytes.	Poly-morpho-nu-clears.	Eosino-phils.	Transi-tionals.
none	42.6	.4	53.4	3.6	0
	47	2.2	48.2	2.6	0
none	36.2	.8	59.8	3.2	0
Asthma for 20 yrs.: free just now.	25	1.8	71.2	1.8	.2
Dyspepsia	39.4	1.4	55.2	3.4	.6
none	27.6	2	70	.4	0
none	39.8	5.2	47.8	6.6	.6

Case no.	Age	Notes on Skin Condition
		<u>HERPES ZOSTER, (contd.)</u>
31	21	June 18th. 1912. Lesions all dried up. Sixth night dorsal segment. <u>Duration</u> 4 days. No pain.
		<u>HYDROA VACCINIFORME.</u>
32	14	Cheeks and ears affected. <u>Duration</u> 6 yrs.
		<u>ICTHYOSIS.</u>
33	10	Generalised. Worse on axillary borders and extensor aspects of knees and elbows. Moderately severe. <u>Duration</u> 3 years.
		<u>LICHEN PLANUS.</u>
34	30	Patches on lower and inner parts of thighs, head of right fibula and mucous membrane of mouth. Very itchy.
35	18	Extensive on flexor aspect of both fore-arms. Itching not severe. Atrophic type.
36	51	Acute type. Generalised including mouth. <u>Duration</u> 3 months.
37	38	Acute Lichen Planus lesions on arms.

Other diseases	Small lymphocytes.	Large lymphocytes.	Poly-morpho-nu-clears.	Eosino-phils.	Transi-tionals.
	38.2	2	57.2	2	.6
none	46	2.6	50.8	.6	0
none	51.4	3.4	41.6	3.2	.4
none	36.2	4	53.2	6.4	.2
none	40.8	.8	56.2	1.4	.8
none	50.8	7	39.6	2.4	.2
none	36.2	1.4	59	3.4	
none	25.4	2	72	.6	

Case no.	Age	Notes on Skin Condition
		<p><u>LICHEN PLANUS, (contd.)</u></p> <p><u>Duration</u> 3 weeks. Lichen Verrucosus on legs. <u>Duration</u> 8 weeks. Similar attack 5 years ago.</p>
38	6	<p><u>LICHEN SPINULOSUS.</u></p> <p>Extensive on abdomen, chest and axillary borders. <u>Duration</u> 6 weeks.</p>
39	44	<p><u>LUPUS ERYTHEMATOSUS.</u></p> <p>Extensive on ears, chin, nose and lips, <u>Duration</u> 19 years.</p>
40	32	<p>Extensive on scalp, ears, face and neck. Slight on hands. <u>Duration</u> 11 years.</p>
41	57	<p><u>LUPUS VULGARIS.</u></p> <p>Patch 2" x 1" under chin. <u>Duration</u> 7 years.</p>
42	37	<p>Patch 5" x 5" on right buttock and small healed patch on nose and mucosa of anterior nares. <u>Duration</u> 24 years.</p>
43	35	<p>Diseased area on left cheek and neck 6" x 6". <u>Duration</u> 12 years.</p>
44	59	<p>Large area 6" x 5" on left cheek and neck.</p>

Other diseases	Small lymphocytes.	Large lymphocytes.	Poly-morpho-nu-clears.	Eosino-phils.	Transi-tionals.
none	24.2	.6	66	9.2	
none	48.4	2.6	48	1	
none	48	1.2	46.6	4.2	
none	44.8	2.6	51.2	.4	1
none	32.6	1.4	65.4	.6	0
none	29.8	1.8	66.8	1.2	.4
none	24.6	1.6	69.8	3.8	0

Case no.	Age	Notes on Skin Condition
		<u>LUPUS VULGARIS, (contd.)</u>
		Also patch on right wrist and hand.
		<u>Duration</u> 50 years.
45	20	Patch 3" x 3" on right cheek.
		<u>Duration</u> 7 years.
46	13	Patch 3½" x 3" on left calf. Blood examined two days after injection of .001c.c. of old Tuberculin which produced a marked local and general reaction.
		<u>Duration</u> 8 years.
		<u>PEDICULOSIS CORPORIS.</u>
47	40	Usual distribution. Severe. Itching intense.
48	35	Usual distribution. Worst on lower part of back of trunk. Severe.
		<u>PEMPHIGUS, BUTCHER'S.</u>
49	23	Large bullous lesions, about 100 in all. Streptococci cultivated from the bullous fluid. Distribution general.
		<u>Duration</u> 5 days. Leucocyte count 15, 400. Died 8 days later.

Other diseases	Small lymphocytes.	Large lymphocytes.	Poly-morpho-nu-clears	Eosino-phils.	Transi-tionals.
none	32.2	1.2	65.6	1	0
none	40.2	3.8	48.4	7.2	.4
none	31.6	2.6	65	.6	.2
none	42	1.4	52.8	3.8	0
none	28.6	1.4	69.2	.6	.2

Case no.	Age	Notes on Skin Condition
50	33	<p><u>PEMPHIGUS FOLIACEUS.</u></p> <p>Generalised. Began as Pemphigus Vulgaris 3 years ago.</p>
51	18	<p><u>PITYRIASIS ROSEA.</u></p> <p>Distribution:- Extensive on trunk.</p> <p><u>Duration:-</u> A few days.</p>
52	17	<p><u>PITYRIASIS RUBRA and ACUTE SEBORRHOEA.</u></p> <p>Generalised. Began as psoriasis 3 months ago and became inflamed and converted into Pityriasis Rubra as a result of using Ung. Sulphuris (B.P.). Shovelful of scales exfoliated daily. <u>April 2nd. 1912.</u></p> <p><u>April 24th. 1912.</u> Oedema, redness and exfoliation very much diminished.</p> <p><u>May 24th. 1912.</u> Skin of trunk and face practically normal. Limbs still slightly affected, but fading.</p>
53	29	<p>Seborrhoea of scalp and face. Inflamed seborrhoea with considerable exfoliation of skin of hands and forearms.</p> <p><u>May 17th. 1912.</u></p>

Other diseases	Small lymphocytes.	Large lymphocytes.	Poly-morpho-nu-clears.	Eosino-phils.	Transi-tionals.
none	30.6	1	64.4	4	0
none	32.8	.6	65.2	1.2	.2
none					
	34.8	2.4	55.8	7	0
	35.6	1.6	58.2	4.6	0
	39.5	2.5	55.4	2.6	
none	21.2	2.2	73.2	3.4	0

Case no.	Age	Notes on Skin Condition
		<u>PITYRIASIS RUBRA & ACUTE SEBORRHOEA, (contd.)</u>
		<u>May 31st. 1912.</u> Inflammation subsiding and exfoliation diminishing.
54	42	Extensive acute seborrhoea of scalp, trunk and limbs. Legs very oedematous and papular. <u>April 17th. 1912.</u>
		<u>April 27th. 1912.</u> Slight improvement. Legs not so oedematous.
55	54	Seborrhoea began one month ago and became inflamed one week ago as the result of applying Ung. Sulphuris (B.P.). Distribution. Scalp, limbs, groins, axillae, oedematous and erythematous. Cracked at flexures. Not much scaling.
56	41	Acute seborrhoea of scalp, face, chest, back, arms and slight on legs. Eyelids oedematous, nearly closing palpebral fissures. Third attack in five years. No history of external irritant.
57	66	Seborrhoea began 6 months ago, got gradually worse and is now a generalised Pityriasis Rubra. Skin very red and infiltrated but not so much scaling as is usual in these cases.

Other diseases	Small lymphocytes.	Large lymphocytes.	Poly-morpho-nu-clears.	Eosino-phils.	Transi-tionals.
	32.6	3.8	58	5.6	0
none	30.2	2.8	59.8	6.8	4
	24	1.2	68.6	6.2	0
none	39	4.2	48.2	7.6	1
Phthisis	42.2	.4	49.8	7.6	
none	27.6	2.2	58.6	10.6	1

Case no.	Age	Notes on Skin Condition
58	3	<p><u>PITYRIASIS RUBRA PILARIS.</u></p> <p>Diseased areas on scalp, face, limbs and trunk.</p>
59	15	<p><u>PRURIGO.</u></p> <p>Generalised but most severe on limbs and neck. Skin greatly infiltrated, scarred and pigmented. Femoral glands enlarged on both sides. <u>Duration</u> 14½ years. <u>June 7th. 1912.</u> Treatment just begun. <u>July 2nd.</u> Skin much smoother and not so thickened. Itching not so intense.</p>
60	11	<p>Extensive on trunk, limbs and face.</p> <p>Flexures not affected. Skin infiltrated. Femoral glands enlarged. <u>Duration</u> 3 yrs.</p>
61	6	<p>Distribution:- Trunk, face and extensor aspects of limbs. Femoral glands enlarged. <u>Duration</u> 6 years. Been treated for 2 weeks. Improving.</p>
62	22	<p>Generalised. Worst on trunk. Deeply pigmented. Femoral glands enlarged. <u>Duration:-</u> Since infancy. Been under treatment for 3 weeks - greatly improved.</p>

Other diseases	Small lymphocytes.	Large lymphocytes.	Poly-morpho-nu-clears.	Eosino-phils.	Transi-tionals.
none	57	4	34.4	3.6	1
Had an asthmatic attack 3 months ago, during which, the mother states, the skin improved greatly.					
	36.4	2.6	46.2	14.8	0
	29.8	5.6	59	5	.6
none	24	.2	62.4	13.4	0
No history of asthma.					
none	38.6	.4	52.4	8.6	
No history of asthma.					
Asthma.	34.8	1.6	58.2	5.4	0
No attacks since admission 3 wks. ago.					

Case no.	Age	Notes on Skin Condition
		<u>PRURIGO, (contd.)</u>
63	7	<p>Generalised. Most marked on extensor aspects of limbs. Skin rough, thickened and pigmented. Femoral glands enlarged. <u>May 13th. 1912.</u> Treatment just started. <u>June 15th. 1912.</u> Improved. Skin not so infiltrated and itching less. <u>July 9th. 1912.</u> Greatly improved. Skin not nearly so thickened.</p>
		<u>PSORIASIS VULGARIS.</u>
64	16	<p>Seborrhoeic Psoriasis. Generalised. Lesions small but numerous. They are raised and very red and angry looking. <u>May 25th. 1912.</u> <u>June 15th. 1912.</u> Spreading. Lesions coalescing to form large patches which are very red and more scaly than before.</p>
65	19	<p>Extensive on scalp, limbs and trunk. <u>April 2nd. 1912.</u> <u>May 24th. 1912.</u> Nearly cured.</p>
66	23	<p>Extensive on head, legs, arms and hands. Slight on body. <u>Duration</u> 3 weeks.</p>

Other diseases	Small lymphocytes.	Large lymphocytes.	Poly-morpho-nu-clears.	Eosino-phils.	Transi-tionals.
Has had several attacks of asthma which definitely alternate with the severity of the Prurigo.	23.4	2.7	62.3	11.6	
	35.4	4	52.6	10.6	1.4
	39	6.2	47.2	6.2	.4
none					
	27.6	2.4	67.8	1.8	.4
	35.6	1	60.8	2.6	
none	31	3.8	61.6	3.6	
	54.6	2.2	39.4	3.4	.4
none	34.4	5.2	58	1.6	.8

Case no.	Age	Notes on Skin Condition
<u>PSORIASIS VULGARIS, (contd.)</u>		
67	20	Trunk, limbs and scalp. <u>Duration</u> 8 years.
68	23	Scalp and limbs affected. Spreading. <u>Duration</u> 2 months. Second attack within 2 years.
69	11	Small discrete lesions on limbs, trunk and scalp. Lesions are infiltrated and rupioid. <u>Duration</u> 4 months.
70	37	Scalp, limbs and both axillae. <u>Duration</u> 5 years.
71	28	Lesions on arms and few on back. Diffuse on scalp. <u>Duration</u> one month.
72	16	Scalp, limbs, soles and palms. <u>Duration</u> 3 months.
73	14	Moderately extensive on trunk, limbs, face, and scalp.
74	53	Very extensive on scalp, limbs and trunk. Third attack in 5 years.
75	33	Generalised. <u>Duration</u> 3 weeks. Had several attacks during last 4 years.
76	19	Moderately severe on arms and scalp. Slight on chest, back and legs. <u>Duration</u> 9 months.

Other diseases	Small lymphocytes.	Large lymphocytes.	Poly-morpho-nu-clears.	Eosino-phils.	Transi-tionals.
none	37.2	3	59	.8	0
none	30	.6	67.8	1.6	
none	40.2	3.2	55	1.6	0
none	33.6	1.4	63.4	1.6	0
none	28.8	2.4	64	3.8	1
none	38	2.2	55.6	3.8	.4
none	42.2	2.4	53.2	2.2	0
none	33.8	2.4	62	1.8	0
none	46	1	50.4	2.4	.2
none	39	3.2	55.6	1.8	.4

Case no.	Age	Notes on Skin Condition
<u>PSORIASIS VULGARIS, (contd.)</u>		
77	24	Extensive on limbs and scalp. <u>Duration</u> 16 years.
78	29	Elbows, knees and palms. <u>Duration</u> 4 weeks. Has had several attacks.
<u>ROSACEA.</u>		
79	35	Cheeks, nose, forehead and chin. Mild seborrhoea of scalp. <u>Duration</u> 15 years.
80	40	Nose, cheeks, and chin. Seborrhoea sicca of scalp. <u>Duration</u> 1 year.
81	36	Forehead, cheeks, chin and nose. Very red and numerous pustules. <u>Duration</u> 10 years.
<u>SCABIES.</u>		
82	10	Generalised. Moderately severe. Also Pediculosis Corporis. <u>Duration</u> 5 months.
83	19	Generalised. Most severe on axillary borders and hands.
84	16	Extensive on trunk, limbs and neck. Lesions crusted. Also Ecthyma and Pediculosis Corporis. <u>Duration</u> :-some mths.

Other diseases	Small lymphocytes.	Large lymphocytes.	Poly-morpho-nu-clears.	Eosino-phils.	Transi-tionals.
none	34.2	2.8	61.6	1.4	0
none	34.8	2.2	61.2	1.8	
none	39.6	2	57.8	.2	.4
Dyspepsia.	26.6	4.4	67.6	1	.4
none	29.2	4.4	65.4	.8	.2
none	50	2.4	43.2	4.4	0
none	23.4	3.8	68	4.2	.6
none	18.6	1.6	76.8	3	0

Case no.	Age	Notes on Skin Condition
		<u>SCABIES, (contd.)</u>
85	30	Distribution:- Arms, hands, and axillary borders. Not pustular.
		<u>SEBORRHOEA and SEBORRHOEIC</u>
		<u>DERMATITIS.</u>
86	24	Extensive on scalp, limbs and axillae, slight on trunk and neck. Worst at flexures. Marked lichenification. <u>Duration:-</u> 2 years.
87	16	Scalp, brow, ears and behind ears and back of neck all red and scaly. Few lesions on shoulders and arms. <u>Duration:-</u> Recurring since six weeks old.
88	8	Scalp, face and limbs fairly extensively affected. <u>Duration</u> 7 years.
89	6	Seborrhoeic Dermatitis of scalp, limbs and trunk. Very extensive. <u>Duration:-</u> 1 year.
90	34	Seborrhoeic Dermatitis of scalp, neck and extensive on limbs. <u>Duration</u> 7 yrs.
91	58	Scalp. Lesions of ringed type on back and chest. Extensive. <u>Duration:-</u> some months.

Other diseases	Small lymphocytes.	Large lymphocytes.	Poly-morpho-nu-clears.	Eosino-phils.	Transi-tionals.
none	38.8	2.2	50.8	8	.2
none	28.2	2.4	65.6	3.6	.2
none	32.4	.2	65.6	1.8	0
none	36	2.4	58.4	2.8	.4
none	54.6	.8	43.2	1.4	0
none	46.4	2.4	50	1.2	0
none	26.6	2	70.4	1	0

Case no.	Age	Notes on Skin Condition
		<u>SYCOSIS.</u>
92	31	Upper lip and beard region. Also seborrhoea of scalp and eyelids. <u>Duration:-</u> 9 years.
		<u>SYPHILIS.</u>
93	43	Malignant Tertiary. Numerous superficial gummata of face, trunk and limbs. Small ulcers and crusted lesions on back. Left thigh is a brawny mass with numerous punched-out ulcers. Wassermann +. <u>Duration:-</u> 15 years untreated. Leucocyte count 5,400. Haemoglobin 60%.
94	22	Lichen syphiliticus of limbs, shoulders, neck and face. Mucous patches on lips. <u>Duration:-</u> 5 months.
95	36	Tertiary ulcer 3" x 2½" on left leg. Typical scars round about. <u>Duration</u> 3 years.
96	29	Malignant. Late secondary and tertiary. Papules. Gummata and ulcers. Extensive. <u>Duration</u> 4 weeks.
97	34	Secondary. Extensive Psoriasiform

Other diseases	Small lymphocytes.	Large lymphocytes.	Poly-morpho-nu-clears.	Eosino-phils.	Transi-tionals.
none	24.4	1.2	71	3	.4
none	10.4	8.8	79.6	1.2	0
none	19.6	3.8	74.6	2	0
none	31.4	8.6	59.8	1.6	.6
none	30.8	2	65.8	1.2	.2
none	37.8	2.8	52	7.4	0

Case	Age	Notes on Skin Condition
		<u>SYPHILIS, (contd.)</u>
		eruption. Mucous patches. <u>Duration</u> 4 months.
98	45	Large breaking down gumma on left leg. Punched-out ulcer on scalp. Numerous old scars. <u>Duration</u> 2 years.
99	40	Tertiary. Several ulcers on right knee. <u>Duration:-</u> 1 year
100	38	Tertiary ulcers on left knee. Typical scars on arms. <u>Duration</u> 1½ years.
		<u>TINEA BARBAE.</u>
101	23	Numerous large red nodular lesions on chin. Large spore fungus. <u>Duration</u> 3 months.
		<u>TUBERCULOSIS CUTIS.</u>
102	44	Numerous tuberculous crusted lesions from 1" to 2" in diameter on limbs. <u>Duration</u> 2 years.
103	27	Large ulcerated crusted patch on back of left hand. General atrophy of hand with shortening of middle digit. <u>Duration</u> 20 years.

Other diseases	Small lymphocytes.	Large lymphocytes.	Poly-morpho-nu-clears.	Eosino-phils.	Transi-tionals.
none	32.8	2.2	61.8	3.2	0
none	23.8	3.2	72.2	.8	0
none	28.2	1	69.6	.8	.4
none	16.6	1	81.6	.8	
none	45.6	3	50.6	.8	0
none	31	3.4	62.8	2	.8

Case no.	Age	Notes on Skin Condition
		<u>URTICARIA.</u>
104	1	Urticaria Papulosa. Extensive on trunk and limbs. Slight pigmentation. <u>Duration:-</u> 2 months.
105	19	Chiefly trunk affected. Typical wheals. <u>Duration:-</u> 2 days.

[illegible]